



UNITED STATES PATENT AND TRADEMARK OFFICE

Lev

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|--------------------------|------------------|
| 10/533,394 | 11/23/2005 | Oliver Baumann | GK-ZEI-3277/500343.20297 | 9038 |

26418 7590 07/03/2007
REED SMITH, LLP
ATTN: PATENT RECORDS DEPARTMENT
599 LEXINGTON AVENUE, 29TH FLOOR
NEW YORK, NY 10022-7650

| | |
|-----------------------|--|
| EXAMINER | |
| SCHWARTZ, JORDAN MARC | |

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2873 | |

| | |
|------------|---------------|
| MAIL DATE | DELIVERY MODE |
| 07/03/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/533,394 | BAUMANN ET AL. |
| | Examiner | Art Unit |
| | Jordan M. Schwartz | 2873 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 11 April 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 11-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) 18-20 is/are allowed.
 6) Claim(s) 11-17 is/are rejected.
 7) Claim(s) 21 is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 11 April 2007 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PCT/EP03/11925, filed on October 28, 2003.

Drawings

For applicant's information, the corrected drawings received April 11, 2007 have been approved by the examiner.

Specification

The abstract of the disclosure is objected to because it is too long. Specifically, the abstract cannot exceed 150 words and it therefore needs be shortened in length. Correction is required. See MPEP 37 CFR 1.72.

Specification

The disclosure is objected to because of the following informalities:

1. in paragraph 0001, line 3 of the substitute specification, after "October 28", the year "2002" should be inserted (the year of the German priority application);

and

2. the last page of the substitute specification which lists the "Reference Numbers" should have a page number (page 7) so that all of the pages of the specification are numbered in compliance with the MPEP.

Appropriate correction is required.

Claim Objections

Claims 12, 15, and 21 are objected to because of the following informalities:

1. With respect to claim 12, line 1, "The ophthalmologic device" should be corrected to "An ophthalmologic device" to provide antecedent basis;
2. With respect to claim 15, "synchronous" should be corrected to "synchronously" for clarity;
3. With respect to claim 21, the claimed "evaluating the image of the eye generated by illumination" and the claimed "tracking of the light marks" lacks an antecedent basis. To provide antecedent basis, it is suggested that in line 2, applicant claim "according to claim 18, further comprising evaluating an image of the eye generated by illumination and further comprising the eye tracker unit tracking patterns of projected light marks on the eye, wherein the detection of the eye..." (which is the assumed meaning for purposes of examination); and
4. With further respect to claim 21, line 3, after "illumination" a comma should be inserted for clarity.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 15, the claimed "the image rate of the digitally controllable unit" renders the claim vague and indefinite. Specifically, the illumination device itself is

not providing imaging and therefore it is not clear how it has an “image rate” rendering the claim vague and indefinite. Furthermore, there is nothing within the specification to support the illumination device providing anything but steady illumination and therefore it is not clear as to how it can be operating “synchronously” with the recording unit. Additionally, the claimed “the image rate of the digitally controllable illumination unit” lacks an antecedent basis since claim 15 depends from claim 11. It is not clear if the dependency of the claim is incorrect or if some limitations were inadvertently omitted and the lack of clarity renders the claim vague and indefinite. For purposes of examination it is assumed that claim 14 is claiming “the image recording unit comprises a digital high-resolution camera” and that claim 15 depends from claim 14 and is claiming “the image recording unit operates synchronously with the image rate of the digital high resolution camera”.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 13, 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kishida et al patent number 2002/0131017.

Kishida reads on these claims by disclosing the limitations therein including the following: an ophthalmologic device (abstract) comprising a controllable illumination unit (paragraphs 0019 and 0044); an observation system (paragraphs 0019-0022, 0044); an image recording unit (paragraph 0045); a central control unit (paragraphs 0019-0021, 0052); an output unit (abstract, paragraphs 0052 and 0074); an eye tracking unit (paragraphs 0057-0058); means for positioning the device with respect to the eye to be

examined (paragraph 0092); the eye tracker unit including an imaging system, the imaging system having at least two different adjustable magnifications (paragraphs 0057-0058, 106, the "eye tracker unit" including the imaging system through which the eye tracking light passes); the imaging system of the eye tracker unit as a zoom lens system (paragraphs 0057-0058, 106); the central control unit having a user interface with conventional input devices (paragraph 0053 re keyboard); and the output unit as a monitor or printer (abstract, paragraphs 0052 and 0074).

Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Sklar et al patent number 5,098,426.

Sklar et al reads on this claim by disclosing the limitations therein including the following: an ophthalmologic device (Fig 1, column 1, lines 5-14, column 11, lines 61-66); comprising a controllable illumination unit (column 12, lines 29-51); and observation system (abstract, re the microscope as the observation system); an image recording unit (column 8, lines 17-35); a central control unit (column 8, lines 17-35 re the "microprocessor" and/or column 11, line 24 re the "control panel"); an output unit (Figure 1, column 12, line 57, monitor "19"); an eye tracker unit (abstract, column 6, line 57 to column 7, line 7); means for relatively positioning the device with respect to the eye (Figure 1, column 11, line 61 to column 12, line 2, re forehead rest "12" and chinrest "13"); the observation system as a stereo microscope with changeable magnification (abstract, column 4, line 28, column 13, lines 1-4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 13, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al (patent number 5,548,354) in view of Nishio et al (patent number 5,430,507).

Kasahara discloses the limitations therein including the following: an ophthalmologic device (abstract) comprising a controllable illumination unit (column 8, lines 10-11, column 10, line 49); an observation system (column 8, lines 16-22, column 3, lines 3-5); an image recording unit (column 4, lines 11-12); a central control unit (Fig 2, "31"); an output unit (column 11, lines 20-24 i.e. the monitor or the printer); an eye tracking unit (column 8, line 9, column 3, lines 10-13); means for positioning the device with respect to the eye to be examined (column 8, lines 9-29); the eye tracker unit including an imaging system (column 2, lines 50-53); and the output unit as a monitor or printer (column 11, lines 20-24). The control unit of Kasahara will inherently comprise a user interface such as at least a keyboard or mouse, this being reasonably based upon Kasahara disclosing the device comprising a monitor and printer (column 11, lines 20-24).

Kasahara discloses as is set forth above but does not specifically disclose the imaging system of the eye tracker having at least two different adjustable magnifications. Nishio et al teaches that in an ophthalmological device comprising an

eye tracking unit having an imaging system, that it is desirable to have the imaging system with at least two different adjustable magnifications, for the purpose of providing improved alignment of the eye (abstract, column 1, line 60 to column 2, line 9).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the imaging system of the eye tracker unit of Kasahara et al as having at least two different adjustable magnifications since Nishio et al teaches that in an ophthalmological device comprising an eye tracking unit having an imaging system, that it is desirable to have the imaging system with at least two different adjustable magnifications, for the purpose of providing improved alignment of the eye.

The examiner takes Judicial Notice that zoom lenses and interchangeable lenses are well known means of providing variable magnification. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the adjustable magnification of the imaging system of Kasahara as modified by Nishio et al being provided by either zoom lenses or interchangeable lenses since zoom lenses and interchangeable lenses are well known means of providing variable magnification.

Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al (patent number 5,548,354) in view of Nishio et al (patent number 5,430,507) and further in view of Koest et al (patent number 6,286,958).

Kasahara and Nishio disclose and teach as set forth above and Kasahara further discloses the image recording unit as a digital high resolution camera (column 9, lines 1-35) but do not specifically disclose the use of a tilting device for tilting a camera chip

relative to the optical axis for Scheimpflug correction. Koest teaches that in an ophthalmologic device it is desirable to use a tilting device for tilting a camera chip relative to the optical axis for Scheimpflug correction for the purpose of providing images of improved resolution (abstract, column 1, lines 39-51, column 2, lines 4-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the ophthalmologic device of Kasahara as modified by Nishio as further comprising a tilting device for tilting a camera chip relative to the optical axis for Scheimpflug correction since Koest teaches that in an ophthalmologic device it is desirable to use a tilting device for tilting a camera chip relative to the optical axis for Scheimpflug correction for the purpose of providing images of improved resolution. It is believed that the image recording unit of Kasahara will inherently operate synchronously with the image rate of the digital high resolution camera, this being reasonably based upon it being well known in the art of photography to synchronize the taking and recording of images to provide improved accuracy in imaging.

Allowable Subject Matter

Claims 18-21 are allowed (with claim 21 overcoming the claim objection set forth above).

The following is a statement of reasons for the indication of allowable subject matter: with respect to the allowable subject matter, none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, with reference to independent claim

18, none of the prior art either alone or in combination, disclose or teach of the claimed method for positioning an ophthalmologic device specifically including, as the distinguishing features in combination with the other limitations, the eye tracker unit with the wide-angle setting supplying signals containing the coordinates of the eye relative to the eye tracker unit and therefore also relative to the optical axis, the eye tracker unit generating a corresponding reference value from the claimed signals with respect to the amount of movement and direction for a positioning device and the changing of the magnification of the imaging system of the eye tracker after alignment in the x-direction and y-direction. Specifically, with reference to independent claim 19, none of the prior art either alone or in combination, disclose or teach of the claimed method for positioning an ophthalmologic device specifically including, as the distinguishing features in combination with the other limitations, the selecting of a wide-angle setting of an objective of a stereo microscope of an image recording unit and the image recording unit supplying signals containing the coordinates of the eye relative to the image recording unit and therefore also relative to the optical axis, the image recording unit generating a corresponding reference value from the claimed signals with respect to the amount of movement and direction for a positioning device and the changing of the objective setting of the stereo microscope after alignment in the x-direction and y-direction.

Response to Arguments

Upon further consideration and based upon applicant's arguments, the 112 rejection of claim 13 with respect to the claimed "interchangeable lens" has been withdrawn.

Applicant's arguments received April 11, 2007 have been considered but, with respect to the rejected claims set forth above, they are not persuasive.

With respect to claims 11, 13 and 17 rejected by Kasahara in view of Nishio, applicant argues that the references do not disclose or teach of the eye tracking unit which detects the position of the eye and provides control signals completely independent from the projected light marks. However, applicant is arguing limitations that have not been claimed. Specifically, none of these rejected claims are claiming the aforementioned. Instead the independent claim is broadly claiming "the eye tracking unit includes an imaging system, the imaging system having at least two different adjustable magnifications" which are disclosed and taught as set forth in the rejection above. With respect to Kasahara in view of Sander applicant argues that the references fail to disclose or teach of the eye tracker unit that includes an imaging system having at least two different magnifications. Again, applicant is arguing limitations that have not been claimed. Claim 12 is an independent claim which claims the observation system as a stereo microscope with changeable magnification (not the eye tracker unit having a changeable magnification as argued). The references disclose and teach the aforementioned, however Sklar is a better reference and a rejection of claim 12 by Kasahara et al by Sander et al would have been repetitive. The examiner agrees that the rejection of claim 14 by Kasahara in view of Koest was not correct since claim 14 is

a dependent claim dependent from claim 11. Claim 14 is therefore being rejected by Kasahara in view of Nishio and further in view of Koest as set forth above. For at least this reason, the present rejection is being made non-final. Applicant's arguments of claim 16 are moot in view of the different means of rejecting claim 16 set forth above.

Examiner's Comments

With respect to claim 11, as a suggestion to overcome the art of record, in the last line of the claim, applicant may want to claim "said imaging system having at least two different adjustable magnifications, a first magnification for determining a position of the eye relative to the optical axis and a second magnification to track patterns of projected light marks on the eye". The examiner has no suggestion for independent claim 12 at this time.

Campin et al publication number 2006/0158639 and Zepkin et al publication number 2003/0225398 are being cited herein to show additional references that would have made obvious claim 11 and a number of its rejected claims, however such rejections would have been repetitive.

Knopp et al patent number 6,702,809 and Morrison et al patent number 6,394,602 are being cited herein to show additional references that would have read on claim 12, however, such rejections would have been repetitive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (571) 272-2337. The examiner can normally be reached on Monday to Friday (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached at (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jordan M. Schwartz
Primary Examiner
Art Unit 2873
June 29, 2007